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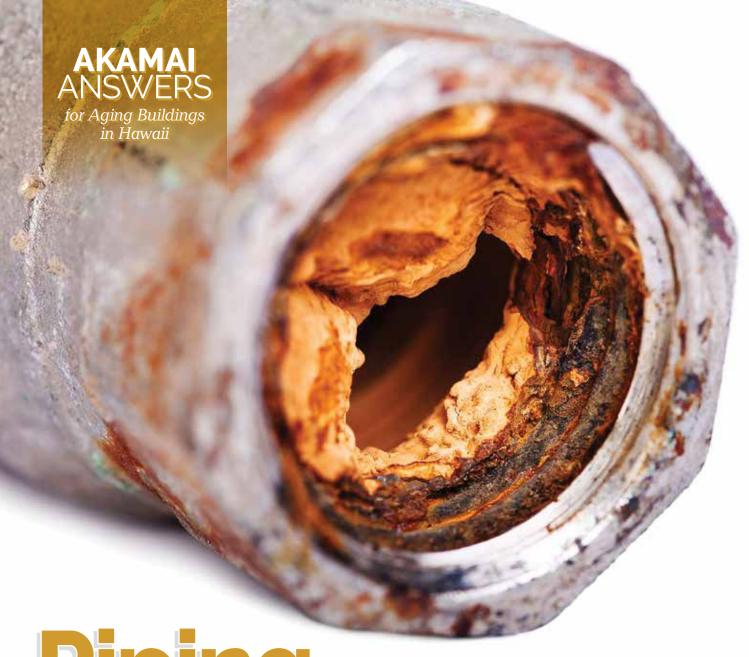
REHABILITATION OF BUILDINGS:

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CONCRETE STAINING & ENGRAVING

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Piping Nightmares 1. 12 and 19 and 1

What You **NEED** to Know About Pipes in Hawaii What You **DON'T KNOW** About Piping Failure What You **SHOULD KNOW** About Re-Piping





What You NEED to Know About Pipes in Hawaii

Nothing lasts forever. In Hawaii, apartment and condominium dwellings are approaching 40 years of age or more. Property managers and HOAs increasingly struggle with horrific emergency issues including water infiltration, sewage leaks and kitchen/bath repairs.

The closer your building is to the ocean, the sooner you will experience pipe failure. In Hawaii salt, climate and soil conditions can contribute to the degradation of all plumbing and sewage pipes. Though plastic, cast iron, copper, and galvanized pipes were once thought to last forever, it is now known their lifespans in Hawaii may be less than 45 years.





Catastrophic plumbing that can cause millions in property damage may have quickly shifted from leaking pipes to a flood of water or raw sewage. Though repair—as opposed to re–piping—may be advisable, labor costs for emergency response can run two to three times the cost of scheduled repair while problems re–occur with increasing frequency.

While there may be several reasons to re-pipe, action is often deferred until problems start—with corroded water pipes that result in low water pressure, or rusty colored water, reduced water flow, and pinhole leaks. Acidity from food and human waste causes corrosion of cast iron waste lines—inside and out—while elements from Mother Nature attack from the outside in.

What You SHOULD KNOW About Re-Piping

Plumbing that is out of sight should not be out of mind. If your building was built 40 years ago, it is likely that an inspection would find broken, corroded and rusted bands as well as cast iron and PVC that is brittle to touch—or blistering, cracked, fractured or just hopelessly plugged with sediment. Excessive leakage may be temporarily prevented only by waste built up inside over the years to form a tenuous coating.

If your system is 25 years or older, your manager or HOA should begin thinking about budgeting for emergency plumbing or increasing reserves.

The AFFORDABLE, EFFECTIVE, and FAST WAY to RE-PIPE

Hawaii Plumbing Group is Hawaii's Replacement Specialist for Condominiums, High-rises, and Town Home Projects

- COMPLETE PLUMBING RETROFIT (Drains, Vents, Waste, Water Distribution)
- PROPRIETARY TURNKEY RE-PIPE PROCESSES
- ON SCHEDULE, AND ON BUDGET IS OUR GOAL!

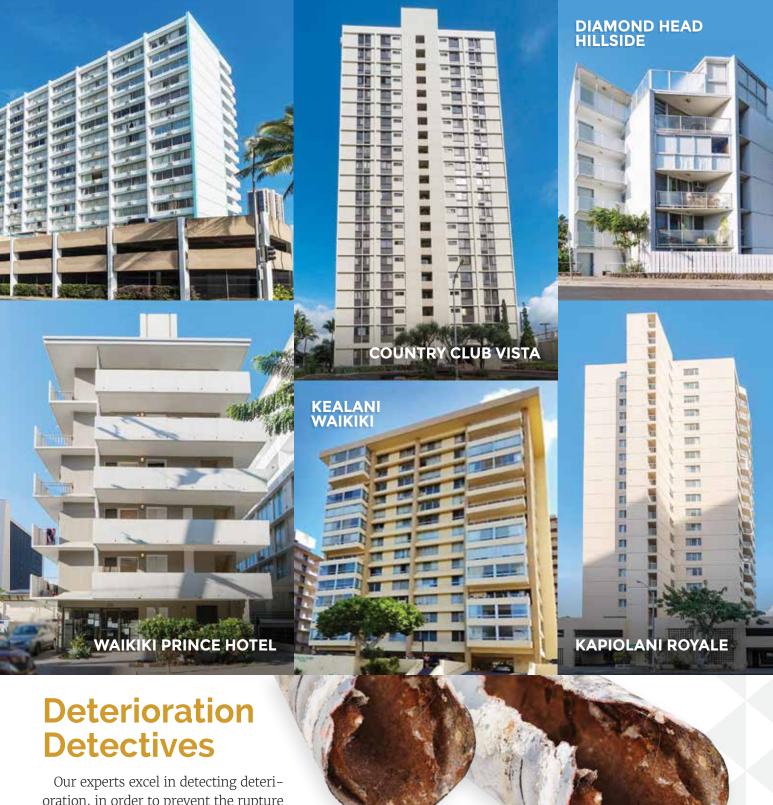
FREE CONSULTATIONS





We're Proud so Many of Hawaii's Best Managed Buildings are Among Clients





Our experts excel in detecting deterioration, in order to prevent the rupture of cracked or rusted pipes that can cause water or waste leaks, resulting in extended periods of disruption and chaos!

Our highly skilled, professional plumbers have completed with remarkable efficiency and unrivaled materials and products countless re-piping projets for AOAOs, HOAs, low rises and track housing.



HAWAII'S LEADING PLUMBING RE-PIPE & RETROFIT SPECIALIST CALL (808) 842-9999 "From concept to completion you deal only with HPG professionals."



No Other Piping Firm Matches HPG for Turnkey Efficiency

Widely admired for our professional service and quality work, HPG is a General Contractor with a track record of turnkey excellence. When we say 'turnkey,' we mean everything: minimal disruption and inconvenience during the most complex projects large and small. Whether a family dwelling or large apartment building, no one is asked to move out, and water is not shut off except during work hours.

Our process includes asbestos abatement, wall removals, potable water, waste and vent replacement, fire stopping, tile repair, drywall repair and paint. From concept to completion you deal only with HPG professionals.

Many owners are not aware of the complexity of a re-pipe project and the potential delays or cost overruns caused when inexperienced or incorrectly licensed contractors are hired.





DURABLE, STATE-OF-THE-ART TECHNOLOGY COST EFFECTIVE SOLUTIONS MINIMALLY DISRUPTIVE WORKFLOW

- Commercial and Residential
- Unrivaled On-schedule Performance
- Affordable Work, Free Consultations

We work hand-in-hand with you from your first call contact, all the way to your project completion. We will find affordable solutions without sacrificing quality.

Our highly skilled professional plumbers complete with remarkable efficiency!

- Timely project management, and support from planning to completion
- Responsive, single point of contact for HOA, AOAO and Commercial. As a GC licensed plumbing contractor, clients deal with only dedicated experts.

We take care in protecting your home during the re-pipe process and ensure quality finishing upon completion.

Sharply Focused and Specialized in Re-Piping, We Know Precisely How to Get Your Job Done and Done Right.

We are Hawaii's leading, locally owned all-in-one 'turnkey' re-pipe expert serving Oahu, Maui, Kauai and the Big Island.

What Our Clients Say About Us

"As a homeowner, one of the biggest concerns I had was at the end of each day wanting my home back in full operation. HPG came through with flying colors."

- JOHN WALLS | Property Owner

"When I look at a plumbing contractor, I look at their attention to detail, the technology they are utilizing, their expertise and customer service. I recommend HPG!"

- ALEX MENCH | C2C Engineering



HPG is Hawaii's preeminent plumbing and re-piping company. Licensed as a general building contractor HPG is proud to count so many of Hawaii's leading businesses among our clients. At HPG our mission is not to re-pipe every project; rather, our mission is to provide unrivaled re-piping service to Hawaii at a reasonable cost.

Our pledge:



We will be here for you down the road

RELIABILITY

We will start and finish on time

COMMITMENT

Once a customer, always a customer for life

SERVICE

We will not leave you in the lurch

The HPG promise includes solutions and alternatives to every plumbing situation. A repipe project can be huge. It can be stressful, and if done incorrectly it will be costly.

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An Eye On the Future

as it really been 20 years already since the Y2K panic? As 1999 drew to a jittery close, nobody knew if computers programmed to read only 0s and 1s would continue to function once the calendar turned to the 2000s, and millions of dollars were spent worldwide trying to prepare and adjust.

Who could have guessed all of the progress, generally speaking, we and our computing systems have made since then?

Which brings us to *BMH* asking: What will the building management world look like in 5, 10, 20 years?

Taking into account everything from technology to climate change, we've asked experts in a variety of fields to write about what the future could bring, from buildings to plumbing to paints, and from energy to concrete to security. Their perspectives are fascinating and thought-provoking.

The only thing we really know about the future, of course, is that unforeseen things will occur.

But some things may be foreseeable, and that's what we're shooting for.

The only thing we really know about the future, of course, is that unforeseen things will occur.

We're also launching two new features in this issue. First is Projects, in which we sit down with building managers and board presidents to discuss how they successfully completed capital projects. Kicking it off is 1350 Ala Moana's spalling repair. If you'd like your building to be included in a future issue, please shoot me an email.

We're also introducing a column from Carole Richelieu, the

state's condo specialist, who will address all sorts of issues affecting condo managers, boards and owners.

I'll leave you with my prediction for the future of building management in Hawaii:

One day, not far away, a local college will offer building management certification. It could be a one- or two-year program at a community college in the UH system or at a private school. Organizations such as IREM and BOMA will have to be involved somehow, as will property management companies, both residential and commercial. Courses would include the basics of reading blueprints, engineering, plumbing, electrical, elevators, paints and flooring, hospitality, security, business/condo law, psychology, conflict resolution, Roberts Rules of Order and more.

Just as there once came a time for a travel industry management school at UH-Manoa, as Hawaii's building industry grows, so does the need for formally trained managers.

You read it here first.

Oh, and Happy New Decade. *

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NEW 2020-2021 PRESIDENT OF THE INSTITUTE OF REAL ESTATE MANAGEMENT (IREM®), HAWAII CHAPTER

is with great pleasure that we announce our VP of Business Development, Kristi Hirota-Schmidt, CPM®, CMCA®, AMS®, has officially been installed as the 2020-2021 President of the Institute of Real Estate Management (IREM®). With nearly 20,000 real estate managers across all property types, IREM is an international educational institute that provides industry-leading learning, a powerful network, and internationally recognized certifications.



AWARDS & INSTALLATIONS GALA



IREM held its Annual Awards & Installations Gala on November 2 at the Alohilani Resort. Congratulations to **Brad McClaflin**, Resident Manager at The Pavilion at Waikiki, for winning the Accredited Residential Manager of the Year Award, and **Gabriel Valentin**, Resident Manager at the Mauna Lani Terrace, and **John Pampalone**, General Manager at The Villa on Eaton Square, for winning Building of the Year, all within their unit size category. Hawaiian Properties has managed The Pavilion at Waikiki since July 2014, Mauna Lani Terrace since January 2018 and The Villa on Eaton Square since June 1997.

At the Gala, the following managers of Hawaiian Properties managed associations were recognized for earning their Accredited Residential Manager (ARM®) certification:

Martin Trevino, Resident Manager, Chinatown Gateway Plaza Elsa Fultz, Site Manager, Pearlridge Gardens & Tower Michael Ako, General Manager, Beach Villas at Ko Olina Peter Togawa, Assistant Resort General Manager, Beach Villas at Ko Olina

Jose Dominguez, General Manager, Keauhou Place

Dan Daoang, Jr., Resident Manager, Country Club Village 6

CONGRATULATIONS TO BRAD MCCLAFLIN, GABRIEL VALENTIN, AND JOHN PAMPALONE ON THEIR HARD WORK AND OUTSTANDING ACCOMPLISHMENT.



2 2000 2000



Kevin Agena, Jeff Dickinson, Shaunagh Haiola, Dass Ramadass, Brad McClaflin, Kristi Hirota-Schmidt, Gabriel Valentin, Christy Hinds, Selkie Khoo, Michael Gordon, Kanani Kaopua, Daniel Kent

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OH, what a year! Hawaiiana Named "Best Workplace" AND #1 Condo Manager!



Shown are employees from Hawaiiana's Oahu office. Hawaiiana has over 250 employees, including those from our Big Island, Kauai and Maui offices.

At Hawaiiana Management Company, we are grateful to have one of the best jobs in the world - serving our association management clients! As we embark on 2020, we would like to share two of our most meaningful milestones of 2019.

Hawaiiana was honored by Pacific Business News as Hawaii's top "2019 Best Workplace" in the large business (100+ employees) category for 2019. Jay Bloom, president of Hawaiiana Group Incorporated, Hawaiiana Management Company's

parent company, received the award on behalf of Hawaiiana's 250+ employees. "Without question," he commented, "this was the proudest day of my 30 years here at Hawaiiana! While other milestones including our number of clients, market share, years in business and the opening of new offices - are noteworthy and important, these accomplishments are dwarfed by this recognition."

To be named a Best Workplace, companies had to pass a rigorous independent evaluation by the firm

Ouantum Workplace. Not only was Hawaiiana recognized by this outside HR firm as one of Hawaii's Best Workplaces - we received the highest score in our category, and were the only large workplace to score over 90%.

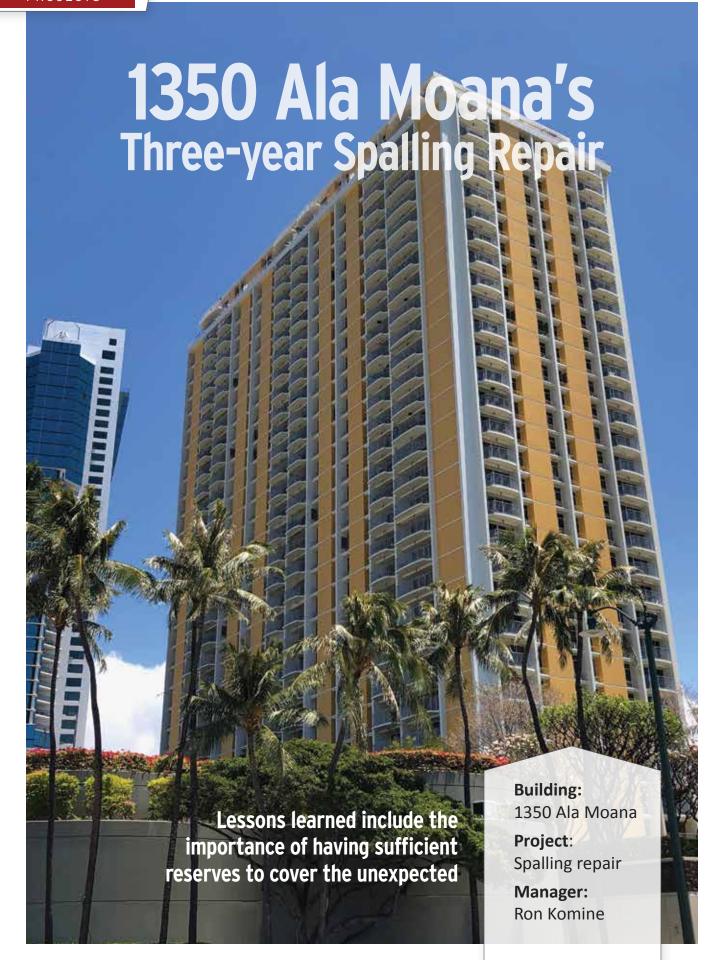
One week after being honored as "Best Workplace," Hawaiiana appeared in the top spot in the Pacific Business News Condominium Association Managers list. Thanks to our clients, Hawaiiana has appeared in the top spot on this list from the very first time it appeared, over eleven "lists" ago.

We know that success is not measured by mere statistics, but by the value we are able to provide to those we serve. Hawaiiana is grateful for the opportunity to serve over 740 associations in Hawaii. translating to approximately 120,000 residences – all with a stellar client retention rate of 98.5%. Our continuing mission is to serve our clients!

For more information on Hawaiiana's award-winning services, please contact: Mele Heresa, CCIM®, CPM® at meleh@hmcmgt.com or (808) 593-6827.

PACIFIC BUSINESS NEWS I 2019 HAWAII'S BEST WORKPLACES





Board involvement:

1350 Ala Moana has a Physical Plant Committee on which a number of board members serve, including the president Yvette Rogers and the treasurer. The PPC investigates, deliberates and proposes recommendations to the entire board for votes on actions to take. Projects are then managed by our team of staff, PPC members and property manager. As with our major waste pipe plumbing project of a few years ago, we believe in addressing problems in as efficient and effective manners as possible.

When did the building open? 1968.

Number of units:

353 on 33 floors

Number of units and common areas affected?

All 353 units were inspected for repair. The majority of the units received some measure of repair. The parking structure received significant repair.

When/how did you first notice this spalling problem?

Spalling inspection is a continuous issue, it needs to be done on a regular basis. The last paint job for 1350 was done in 2006, which may have involved some spalling repairs. We began very initial investigations in 2014 and to prepare for the project in 2016. Seal Masters of Hawaii and their team worked with 1350 Ala Moana management to identify spalled concrete at the property which affected many areas of the exterior of the building and the parking structure. Seal Masters created a plan that included a comprehensive assessment, specifications, engineering, permitting, project management and execution of the work, as well as provided warranties for the spall repair.

It was discovered the original coat of paint was no longer adhering to the building due to building practices now understood to be counterproductive. The paint needed to be scraped down to bare concrete. This cost was unexpected and not in the budget.

How was your management company involved?

Touchstone Properties provided invaluable service to us and was involved from the planning phases to completion. They helped arrange for project specification and bidding. During this process it was discovered the original coat of paint was no longer adhering to the building due to building practices now understood to be counterproductive. The paint needed to be scraped down to bare concrete. This cost was unexpected and not in the budget, so Touchstone worked tirelessly with the finance committee and the board of directors to understand how the project would be funded. Since the project spanned over three fiscal periods, Touchstone helped develop a cashflow plan to collect funds and make timely payments to the vendor. They also helped with the distribution of some of the communications.

Did you bring in an outside consultant?

JPB Engineering was our outside consultant. They were brought in to help oversee quality control and review applications for payment. Prior to the project, we worked with architect John Black of Lapis Design Partners to research the color and design history of Minoru Yamasaki, 1350 Ala Moana's architect. Mr. Yamasaki was one of the most important American architects of the 20th century, and among many other large scale projects designed the World Trade Center in New York City. Mr. Black was able to locate the color scheme Mr. Yamasaki utilized in the same period as 1350 Ala Moana, so that we were able to honor his original vision and his historic significance in selecting our new colors.

How did you decide on a contractor to do the repairs?

Project documents/specifications were created and put out to bid. Five bid packages were sent out to contractors and we interviewed those contractors that responded. The board of directors selected Seal Masters of Hawaii because they are the most sophisticated spall repair company in Hawaii. Their expertise, professionalism, reliability and price impressed us in our previous experience with them. Their upper management, as well as on-site management, stay fully engaged during every step of the process. They guided us through the initial assessment, the proposal process, obtaining engineering and the selection of materials. They managed the project, handled all communications with residents, performed high-quality workmanship and provided extended warranties.



Ron Komine and administrative assistant Terra Garrigus





How/when did you communicate with residents about the spalling issue and then the work?

After the contract was signed, owners and residents were informed of the project through notices that were mailed and emailed. Prior to the project start date, Seal Masters worked with the building management to create and present a narrative explanation as to why the project needed to be undertaken, how it was expected to unfold and when it would take place on each elevation of the building. With some of the worst weather we have had in recent years causing delays, 1350's staff worked with Seal Masters to keep residents informed to the best of our abilities. This involved board letters, elevator notices, messages hung on unit doors, emails and telephone calls. Safety was of upmost importance to us all, both for the workers and our residents.

When did actual work on the project begin and end?

The project started on May 15, 2017, and was just completed on Nov. 22, 2019.

Cost?

The entire renovation project, which included concrete repair, paint removal and painting of the building was \$3,088,028.92.

Any lessons learned that other buildings could benefit from?

One lesson learned was that it is important to have healthy reserves and a responsibly researched budget for concrete spalling repairs because the amount and cost of repairs cannot be determined until one entire stack of the building is completed. Once the initial stack is completed, it is easier to establish an estimated overall cost for the rest of the building. We learned that original construction practices can provide surprises, and bad weather can cause unfortunate delays.

It is also important to note that the Mauka and Diamond Head elevations generally have more concrete repairs than the Ewa and Makai, simply because the trade winds hit the Mauka and Diamond Head elevations of the buildings on a regular basis. �



ASSOCIA HAWAII THANKS CLIENTS AND EMPLOYEES FOR A SUCCESSFUL 2019





Pauli Wong, PCAM®, RS® President of Associa Hawaii, AAMC®

- Pacific Business News named Associa Hawaii among the Top Best Places to Work in 2018 and 2019
- Associa Hawaii President, Pauli Wong, named 2019 Business Leader of the Year - Big Business category, by Pacific Business News
- Client Association Accounting functions were moved to Hawaii during the first quarter of this year creating 8 additional jobs for Hawaii residents
- Employee turnover remained consistently below the national average
- Expanded Client Accounting Services with Cash, Accrual or Modified Accrual Accounting Methods now offered to all clients associations
- Local client payment processing was negotiated with local and national financial institutions and successfully implemented
- A professional reserve study division was created and is successfully operating
- Three locally-owned management companies on Maui and the Big Island were acquired

- Two additional offices on Maui and in Kona were established plus a Kapolei conference center was opened for a total of 8 Associa Hawaii work sites
- 59 new accounts representing nearly 10,000 residential, commercial and resort units on 6 islands were contracted
- New clients include prestigious developers A&B Properties, SamKoo Pacific, The Resort Group and prominent communities such as Waikele Community Association and Capitol Place
- 13,000 Hawaii property owners became registered subscribers of Associa's game-changing communication app TownSq (Pronounced "Town Square")
- Thanks to Pauli's leadership, today Associa Hawaii is among the top management companies in Hawaii and under contact with more than 400 Hawaii buildings/communities with 42,000 property owners representing assets valued in the billions of dollars.





Technology Advances Improve Building Security

Looking to the cloud for more secure facilities



acility managers will benefit immensely from the coming wave of technological advancements in the security industry.

First, they're going to benefit from an avail-

First, they're going to benefit from an availability perspective, and what manager hasn't gone to look for post-incident security information only to discover that their system was offline during the incident and the information they're seeking isn't available?

Second, they're going to benefit from a usability perspective, as the latest product features will always be available to them on their workstation, or on their mobile device.

Third, their system downtime will be kept to a minimum, so no more calling for service, waiting in the queue

and finally getting a technician onsite to troubleshoot.

Sound like magic to your facility management ears? Let me tell you why you should be leveraging the latest technologies within your operations today.

The growth of integrated, cloud-enabled access control, visitor management, surveillance, intrusion detection and intercom technologies continues unabated.

Facility managers can count on the intrinsic cloud platform (Azure, AWS or Google) scalability for redundancy, so no more offline backend servers, no more backup power supplies to maintain, no more periodic server hardware refreshes, no more server electrical bills and no more electrical spend for the cooling of the server cabinets.

Your security service provider can maintain your cloud

Your security service provider can maintain your cloud security applications for you, and in many cases the manufacturer takes care of application maintenance.

security applications for you, and in many cases the manufacturer takes care of application maintenance. This means that security patches and version upgrades can be automatically applied or scheduled (overnight for example) via the connected cloud infrastructure, so that your system is always up to date, and your user experience always benefits from the latest product features.

The final benefit of modern cloud applications is the monitoring and system assessment that happens in the cloud 24 hours a day without user intervention. The peace of mind you've always sought happens automatically because system diagnostics are continuous. System alerts that require attention can be handled remotely by your service provider, so before you even know there was an issue, it's already been resolved.

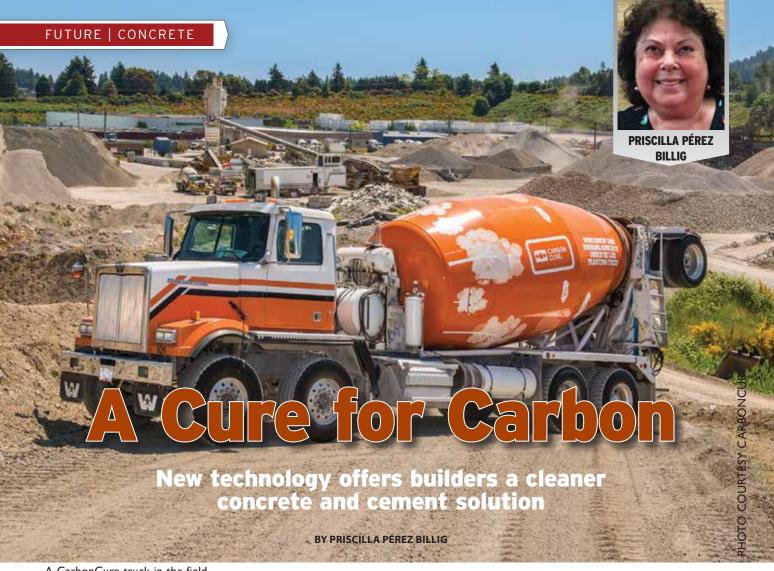
Of course, there will still be occasional onsite hardware failures of cameras, power supplies and electronic door locking hardware.

These failures can be minimized by implementing proper power supplies and monitoring them (via your cloudconnected service) for consistent output. Devices that begin drawing more power or bandwidth than usual can be interrogated remotely to ascertain their condition, further minimizing your security system downtime.

Ultimately, facility managers without IT staff should seek out referenced managed security service providers (MSSP) in their area and find an offering that's a fit for their operations. �

Andrew Lanning co-founded Integrated Security Technologies, starting his career in the computer and electronics field in 1982. He serves on the board of directors of the National Defense Industry Association Hawaii Chapter, and as the Hawaii ambassador for the National System Contractors Association's Ignite program. For more information: istechsnet.com.





A CarbonCure truck in the field

revolutionary experiment may change how Hawaii builds. CarbonCure Technologies has introduced an innovative "clean" solution called post-industrial carbon dioxide (CO₂) mineralized concrete.

In a pilot project headed by the Hawaii Department of Transportation, a Goodfellow Bros. crew paved a portion of a Kapolei Interchange access road using 150 cubic yards of carboninjected concrete next to an equivalent pour of standard concrete mix.

The test allowed the DOT to do a side-by-side comparison of the two mixes to determine specifications for the use of carbon-injected concrete in future road projects.

The CarbonCure process calls for injecting CO2, in this case using waste carbon dioxide from Hawaii Gas, into ready-mix and masonry concrete.

The CO, becomes mineralized, lowers the carbon footprint emitted by the composite's cement greenhouse emissions and improves the quality of the concrete.

"We are focused on innovative ways that sequester carbon dioxide and make it a useful additive to create durable concrete," says Jeannine Souki, Hawaii Gas director of govern-



Jeannine Souki

ment affairs and corporate communications. "Using post-industrial carbon dioxide mineralized concrete will help lower the state's carbon footprint. This new technology helps our environment, roadways and other infrastructure needs of the state."

Cement, which acts as a binding

agent in concrete, is known to release at least 7 percent of Earth's CO, emissions. CO₂ is a fundamental element that is responsible for climate change and a major byproduct of industrial power generation that involves the burning of fossil fuel.

"Carbon dioxide, once it is added to the atmosphere, hangs around for a long time, between 300 to 1,000 years," says David Crisp, atmospheric physicist and science team lead for NASA's Orbiting Carbon Observatory-2 satellite. "Humans have increased the abundance of carbon dioxide by 45 percent since the beginning of the Industrial Age."

A Team Effort

The Kapolei Interchange demonstration saved 1,500 pounds of carbon emissions, equivalent to offsetting emissions from 1,600 miles of highway driving, according to the DOT.

CarbonCure Technologies, the DOT, Island Ready-Mix Concrete, HC&D Ready Mix and Goodfellow Bros. teamed up to perform the pilot project. The carbon-injected concrete technology purportedly also advances the green building market.

Finding solutions for an aging statewide infrastructure often calls for the use of concrete, the world's most abundant man-made material, a composite made of water, aggregate and its basic ingredient—cement. According to the U.S. Mineral Commodities Summary 2018, Portland cement is the most widely manufactured construction material in the world, produced at a rate of 4 billion metric tons per year.

Positive results of the Kapolei Interchange test convinced Gov. David Ige to consider legislation that would require, where appropriate, building all state-funded projects using the CarbonCure technology. The governor has also called for mitigation of greenhouse gas emissions through the sequestration of more atmospheric carbon and greenhouse gases than the state produces as quickly as possible, but no later than 2045.

The Honolulu City Council passed a resolution requesting city administration to "consider post-industrial carbon dioxide mineralized concrete for use in all City and County of Honolulu capital improvement projects where its use does not significantly increase the costs or significantly delay the project."

As Hawaii's population grows, so does its built environment—all in the heart of a deteriorating infrastructure, with some aging systems more than a century old. Proposed city projects include sidewalks, curb and gutter reconstruction, retaining walls and various other improvements.

Its use can also accommodate the needs of private residences and various public venues, such as hotel parking decks, pool decks and common areas.

"Concrete made from recycled CO, is a win-win from a mitigation and



Kirk Caldwell

adaptation standpoint. It embodies carbon, thereby keeping it out of the atmosphere so it can't contribute to further global heating, and it strengthens our roads and infra-

structure against accelerating impacts," says Honolulu Mayor Kirk Caldwell. "In addition, this material needs less energy and materials to make, so it has the potential to further support the sustainability and resilience of our city budgets."

"Who's Who in North American Cement Imports" reports that in 2017 Hawaii imported approximately 300,000 tons of cement from Taiwan. Its importation leads to costs in shipping, thereby leaving a larger CO, footprint. Hawaiian Cement, which has one import terminal and four distribution terminals in Hawaii, paid \$121 per ton of cement—approximately \$36,300,000.



Rob Niven

"This (carbon-injected concrete) method would reduce import by a significant amount," says Rob Niven, Carbon-Cure CEO and founder. "What we're doing is

helping Hawaii reduce such dependency on imports to the Islands by taking advantage of on-island waste products, which is CO₂."

Niven says CarbonCure, assisted by Hawaii's Elemental Excelerator, covers the cost of the technology, equipment and its installation.

"We provide cost-efficient fees for the producer and those efficiences are shared between the concrete producer and CarbonCure; that's how we make a return on our investment," Niven says. "It allows a win-win situation where the end users, the actual contractors and developers get

a better concrete with a lower carbon footprint at the same price."

Value-added Product

For the pilot demonstration, the DOT approached Island Ready-Mix

Concrete vice president and general manager Shorty Kuhn, supplier for the Kapolei paving, saying they were interested in incorporating the carbon-injected concrete into the project.



Shorty Kuhn

"After studying the CarbonCure technology and system for injecting CO₂ into ready mix concrete, we decided to implement this into our production system," Kuhn says. "This is a cost-effective way to mitigate CO₂ and also provide opportunities to the end users to help the environment and also capture LEED points."

Kuhn says his plant had to be retrofitted to accommodate CarbonCure's equipment, the CO, brought in from a local supplier and its integration into the batch plant where an operator can control the process from a panel and the CO₂ goes into the mixing system out in the plant. He describes it as just another additive, somewhat like a restaurant where an additional item is added to the menu.

"At this point I think it's making evervone more aware of the need to be conscious of their of carbon impact on the environment," says Kirk Hashimoto, executive director



Kirk Hashimoto

of Cement and Concrete Products Industry (CCPI) of Hawaii "(Manufacturers) are making an effort to look at their production to see what can be done to lessen the carbon footprint and do our best to make sure we're doing what we can for the environment, so



A crew from Goodfellow Bros. Inc. works on the Kapolei Interchange Phase 2 project.

Part of the CarbonCure equipment

PHOTO COURTESY CARBONCURE

we're looking for whatever approaches can be used here.

"We, as an industry, think this is a great thing to try to do our part."

Hashimoto adds that he sees carboninjected concrete as a value-added type of product. He says this may have a positive impact in the sense that the current (political) leadership is moving toward more sustainability but says he tends to be cautious when a new product comes out "until we have enough test data that show we're getting what we need."

He admits that he prefers to reserve judgment on how beneficial it's going to be, but notes that the product brings to the forefront the idea of being more

conscious of our carbon usage.

"We think this makes concrete a more sustainable choice," Niven says. "Developers, contractors and architects are always looking for ways to build greener but with a sensible solution so they don't have to compromise on quality or cost.

"This meets the demand of a changing market that is both public and private that's really looking for a way that they can help solve this very complicated and urgent issue climate change."

According to NASA, human activity is the principal driver of climate change. Some of the resulting consequences are wildfires, droughts, warming oceans, sea level rise, heat waves, melting ice caps and tropical storms. This science-driven conclusion is not wasted on the various professionals working in the building industry.

Bettina Mehnert, president and CEO of Architects Hawaii Ltd., says Hawaii has been on the forefront of developing concrete technologies, primarily



Bettina Mehnert

because of the cost of shipping steel to the Islands. She points out that the downside of this cost-effective material has been concrete's carbon emissions and believes Hawaii

architects fully embrace and welcome technologies that trap and store the greenhouse gas carbon dioxide.

"As architects, developers, construction and engineering professionals, we have the responsibility to do what we can to create a built environment that allows people and the environment to thrive," Mehnert says. "This technology can certainly help." *

Priscilla Pérez Billig is an associate editor at Trade Publishing: priscilla@ tradepublishing.com.

Is There a Robot Roofer in Your Future?

New roofing technologies also include drones





ish I had a crystal ball. Unfortunately not, so moving forward we will be facing challenges in the roofing industry—and it's already beginning to manifest itself. The U.S. demand for roofing is projected to be 267.9 million squares (1 square=100 square feet), worth \$19.9 billion in 2021.

The environmental impact challenges—extreme weather activity and temperature changes, and population growth in urban developments—will create "heat island" effects such as amplified energy consumption.

We continue to see the integration of technology into the roofing industry, such as drones that are being developed to install asphalt shingles, coming alongside the workforce. The same will apply to low-slope roofs as well. There will be more robust assemblies that will be simple in design and installation, a

new generation of self-adhered membranes, snap-together metal panels and coatings with high solar reflectance and emissivity efficiencies.

Can you imagine a roof transposed to a roof plan tied into GPS and programmed algorithms to consider the weather element, possible precipitation and load, logistically set up roofing project in such a fashion to allow robotics to mechanically lay out the assembly and seal the membrane?

Manufacturers are creating more robust and performance-driven steepand low-slope roofing to address the increasing severity of storms that ravage metal roofing, addressing not only aesthetics but also wind uplift and impact resistance will be a growth area, though more expensive, incorporating wind resistance that meet class G, F and H from Underwriter Laboratories. Collaboration between underwriters, testing laboratories such as FM Global

and manufacturers will only allow performing assemblies on projects, raising costs for owners.

Roofing tiles and polymeric roof systems will become more of an alternative for performance and life cycle cost, as technology is able to crack the barrel of oil into more usable elements, leaving less waste for the roofing industry.

Nanotechnology will be incorporated to have colored surfaces reflect

Nanotechnology will be incorporated to have colored surfaces reflect like a white pigment and develop resistance to the degradation of algae and weathering.

like a white pigment and develop resistance to the degradation of algae and weathering.

Of course, if someone had told me 35 years ago where roofing was going, I would have thought it was science fiction. �

Guy Akasaki is president and CEO of Commercial Roofing & Waterproofing Hawaii, bringing to the table nearly 40 years of roofing and construction experience. His knowledge covers the full spectrum of the roofing and waterproofing industry. He has served three terms on the Hawaii Contractors Licensing Board. For more information: commercialroofinginc.com.

What Will Hawaii Condo Management Look Like in 2040?

Challenges begin with higher customer expectations





t is difficult to predict exactly what condominium management will look like in the next five, 10, 15 or 20 years. If the last 20 years hold any clues, however, the next two decades will not be boring.

One of my friends owns a condominium management company on the Mainland, and says that condominium

management is becoming "concierge management."

I could not agree with her more. Residents have increasingly high expectations, and in a world of email, text, Twitter and Instagram, they want immediate gratification with a smile. While it is important to create realistic parameters for response times, I believe client expectations for increasingly better service will not only make us stronger, but will help us to provide a superior customer service experience. Service will still be the name of the game in 2040—it just might look a little different.

Technology will continue to be a major factor in condominium manage-

ment over the next 20 years. Management companies need to find and use the best technology possible to manage communities. It will take an open mind, the ability to think outside the box and financial resources to lead in this area.

"Go green, go paperless or go home!" will continue to be the mantra for the next 20 years.

Artificial intelligence also offers fascinating possibilities. I can't wait to see what kind of impact it could have on condominium management.

Creating more affordable housing will continue to be a part of the next 20 years. Many people currently living in Hawaii can't afford to purchase a home. Many continue to work multiple jobs just to keep up with day-to-day expenses. Management companies must

I believe climate change is real and will continue to affect our lives in Hawaii. While we don't have a lot of control over what may come our way, we do have control over how we prepare and respond to it.

be able to respond to the unique needs of buildings and single-family homes, which provide more affordable options, by providing additional staff and/or those with specific skills, training or certification.

People are looking for ways to simplify their lives and make them work better. Whether it is providing more cost-effective housing, improving commute time and transportation, offering opportunities for health and fitness or creating more time to spend with family and friends, condominium management companies and developers will have unique opportunities to

make significant contributions that help people achieve their goals. To this end, resident focus will continue to be key, requiring the flexibility to serve the needs of a large and diverse spectrum of clients, from first-time home buyers to "snow birds" creating their dream retirement in Hawaii.

Finally, I think we will all need to be better educated and trained to deal with natural disasters over the next five. 10, 15, 20 years. We have already experienced the effects of fires, volcanoes and floods that have impacted all of the Islands over the last few years.

As we watch the impact of Category 4 and 5 hurricanes in places like Puerto Rico and the Bahamas, we would all do well to pay attention. I believe climate change is real and will continue to affect our lives in Hawaii. While we don't have a lot of control over what may come our way, we do have control over how we prepare and respond to it. .

Mike Hartley is president of Hawaiiana Management Company. For more information, go to hmcmgt.com.



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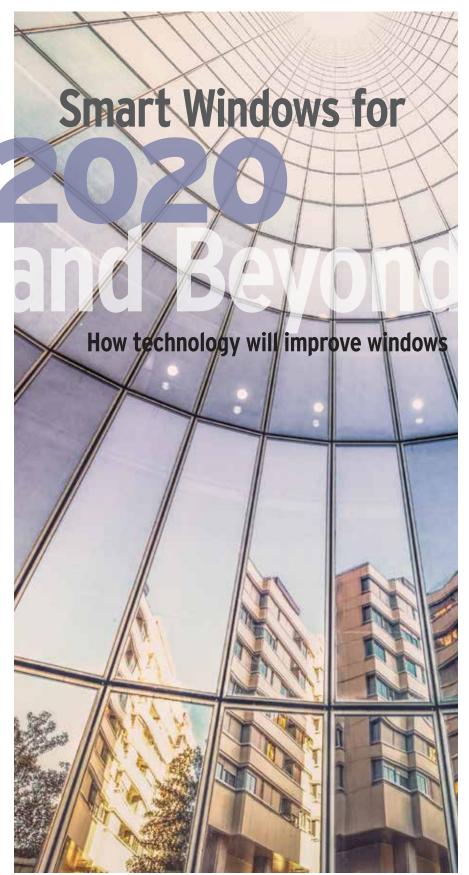
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here was a time when windows were merely an opening in a wall, and all we required from them was light and ventilation. Today we expect so much more—security, energy efficiency, solar heat control, even automation.

In the age of smart phones, smart TVs and smart appliances, why wouldn't we expect our windows to become smarter, too?

As smart home technology continues to soar beyond the imagination, we are seeing truly innovative advancements on the horizon for the window industry.

Energy Efficiency and Solar Windows

While today's windows are certainly more energy efficient than the single-pane and jalousie windows of decades past, new technology is being developed to allow your windows to actually capture solar energy, similar to the photovoltaic cell panels used on roofs, and convert the energy into electricity.

Natural Ventilation and Air Quality

Smart technology that can motorize your windows and allow them to open and close automatically based on your work schedule, a pre-set temperature, or even the local weather forecast. So if the temperature inside your home gets too hot, the windows will open, allowing cooling air to flow through. If it senses rain, the windows will close by themselves.

Privacy and Convenience

Want to watch a movie at home? Maybe show a PowerPoint presenta-

As smart home technology continues to soar beyond the imagination, we are seeing truly innovative advancements on the horizon for the window industry

tion at the office? How about privacy in a bathroom? Windows that can change from clear to opaque with the touch of a button, eliminating the need for conventional blinds or shades, are fairly new to the market. We'll see future innovation in this technology with the addition of environmental sensors that can detect room occupancy, weather and sunlight and adjust the tint level accordingly.

Safety and Security

We've seen great advancements in security with impact-resistant windows featuring a multi-layer laminated glass designed to resist heavy blows for increased protection from intruders,

thieves and vandals. Bullet-resistant and blast mitigation windows are also available, with an even thicker version of laminated glass that helps to prevent a bullet from penetrating the glass, becoming embedded in it instead, for an increased level of protection.

Going forward, we look to see windows with built-in sensors that monitor the openings in your home for safety, security and privacy. With the use of an app on your smartphone, tablet or computer, you'll know at a glance whether all of your windows are properly closed and locked. And with the touch of a button, you be able to close and lock your windows from anywhere in the world.

The downside to all this high-end technology is that it can be very pricy. Many smart window products can add 50 percent or more to the cost of the window. As has happened with other smart products, we could expect those costs to come down over time. For now consumers will need to decide for themselves if the added technology and convenience are worth the extra cost. 🌣

Pam Barrett is the marketing director for Coastal Windows, a local familyowned and -operated window and door manufacturer since 1990. For more information: coastalwindows.com or 676-0529.





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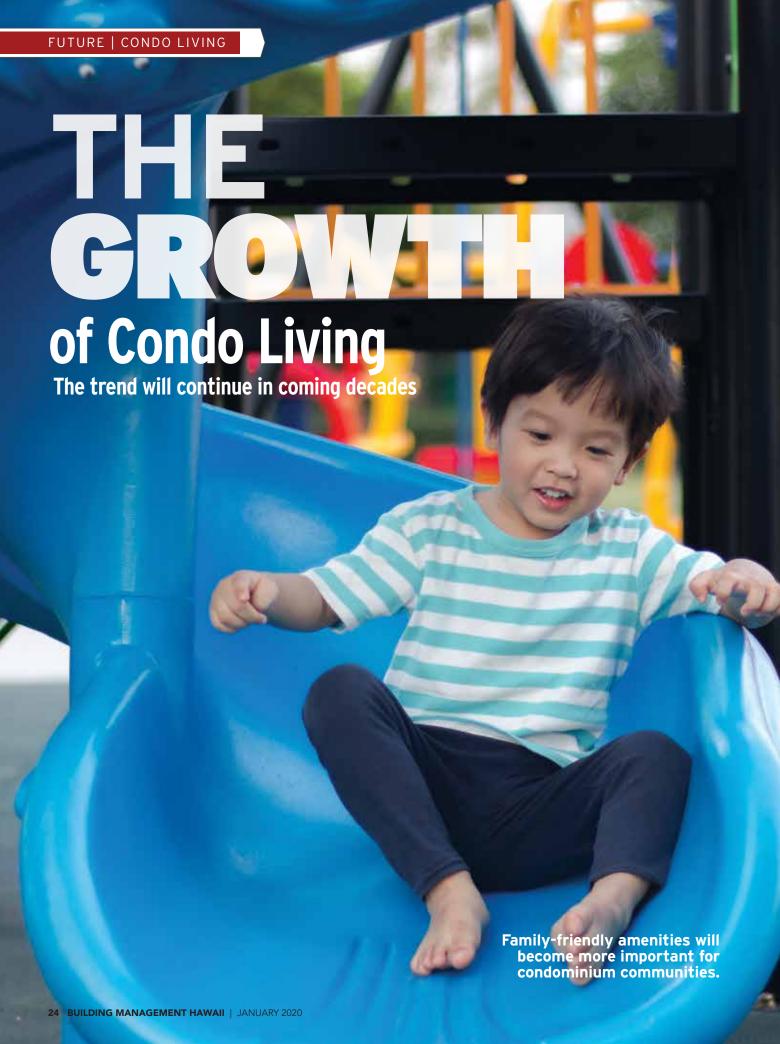


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e've recently had two separate sources ask for thoughts on the future of the condo market. One of them was working on a university study and one was trying to figure out what condo property managers would look like in the future. These were questions about the long-term future of condos.

Here is a summary of our responses. Honestly, there's probably a touch of aspiration in the responses, but they're more or less what we're thinking and what has a good chance of happening over the next 10-20 years.

First, intensification is going to continue, and that is going to mean more condominiums and other types of multi-family dwellings.

As intensification continues, we're going to see a tipping point in the near term with more families opting to have and raise children in condos in an urban setting. Part of this will be driven by a desire to stay in the city (walkable communities), but part of it will also be driven by the economics (i.e. high price) of low-rise housing in the city.

Second, as families begin to fill in condos—not just young single professionals and empty nesters—we'll see developers and cities respond with more family friendly buildings, amenities and program choices. This could mean anything from children's play spaces within buildings to redesigned public spaces and parks.

Third, in line with this shift, we'll also see more sophisticated executions of "mixed-use." Rather than just stacked uses—retail at the bottom, a few levels

of office above, and then a residential condo tower above—developers and operators are going to start thinking about the ecosystem they are creating.

It's probably a bit safe to predict that sustainability will become more important going forward. But as more families and long-term end-users opt for condos, consumers will become more interested in building performance. Technological advancement-

As intensification continues, we're going to see a tipping point in the near term with more families opting to have and raise children in condos in an urban setting.

both hardware and software—should also give this a boost.

Finally, and this applies somewhat to real estate in general, we believe that we'll see a lot more openness and transparency across the industry. There will be much better access to data and information. This too will be aided by advances in technology and networks.

Source: Smart Cities Dive

Looking into the Crystal **Ball for Paints**

Paints are becoming much more than mere surface covers

hat does the future hold for paints? Paints can be used for purposes more than just aesthetics and protection on residential, commercial and industrial properties. Due to recent advancements in technology, paints can serve other purposes that may not have been considered before.

According to PPG Industries, a global supplier of paints, coatings and specialty materials, a sidewalk surface temperature can measure up to 140 degrees Fahrenheit. People and their pets can overheat and become dehydrated





DEAN NAGATOSHI

While still in the research and development phase, solar paint may someday let you transform your building into a renewable energy generator.

due to extended exposure to hot sidewalks. New technology has allowed for development of paint that will allow heat to pass through the top layer of paint, thereby creating a significant drop in the surface temperature of the sidewalk.

Paints can also be engineered to reduce pollution by helping to reduce the energy needed to heat or cool a building, and reducing dirt and pollutants from sticking onto painted surfaces.

For locations that experience unpredictable rainy conditions that make exterior painting difficult, water-resistant paint has been developed to prevent the newly applied paint from washing away should unexpected rain showers occur.

For car paint technology, sound-absorbing paint has been developed to give drivers a quieter driving experience. For the autonomous vehicle, "visibility enhancing paint" has been developed to help self-driving vehicles see in dark, light and various weather conditions.

While still in the research and development phase, solar paint may someday let you transform your building into a renewable energy generator. This could be a game changer if and when it hits the consumer market. .

Dean Nagatoshi is executive director of the Painting and Decorating Contractors Association of Hawaii. PDCA membership includes active unionized painting, decorating, waterproofing and industrial coating contractors, associate manufacturers, wholesalers, distributors and dealers and affiliate contractors with a multitude of skilled and bonded employees across the state. For more information: 479-682 or pdcaofhawaii@gmail.com.

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Evolving Construction Design Technologies





s our society's young adults continue to gravitate toward academic settings, the construction industry feels the harsh contrast in our skilled trades. To combat this issue, the construction industry is evolving by not only embracing but developing its own new technologies. The benefits of these new technologies such as BIM, AR/VR and AI are immeasurable. It won't be long before these new technologies become common place in the construction industry.

Building Information Modeling (BIM), Virtual Design Construction (VDC): 3-D modeling technology has been

present in the construction industry for 20 years, but now the shift from traditional two-dimensional plan sets to VDC and BIM is rapidly accelerating. Contractors implementing BIM and using it to its fullest potential are reaping the rewards of labor savings by avoiding conflicts in design and spotting other omissions during planning stages. The more sophisticated installers have also integrated this technology into their pre-fabrication systems.

Augmented Reality/Virtual Reality (AR/VR): This sector is core-rooted in the video game industry. Unity, a company that produces the world's most widely used real-time 3D

development platform is developing a new product to create immersive AR/VR experiences for the architecture-engineering-construction (AEC) industry. Stakeholders can virtually walk through a project before its built, use a tablet onsite to visualize a finished room or even an entire building on an empty lot. This technology will allow designers and end users to collaborate for the most efficient building designs, which is crucial in instances such as the placement of medical equipment in an operating room. AR/VR technology helps to create not only better buildings but also safer constriction sites. Swedish construction giant Skanska has started to implement VR in their safety training program. The immersive experience from VR has shown to create emotional connections with users,

The benefits of these new technologies are immeasurable. It won't be long before these new technologies become common place in the construction industry

thus increasing hazard awareness and accident prevention.

Artificial Intelligence ("AI"): The manufacturing sector is already seeing advances and improvements to its processes as a result of machine learning and AI. If implemented correctly, the benefits of this technology are just as limitless in construction. AI is developing quickly in the AEC industry in what's known as generative design. Architects and engineers can now develop design systems, allowing them to input a set of parameters with which the computer generates multiple different conceptual design options. Previously, multiple design options would have been too cost-prohibitive and some designs may not have even been conceived.

Sports stadiums are an example of

...continued on page 35

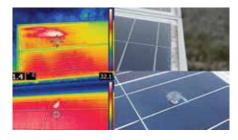


Al Advancements in **Solar Maintenance**



The AI used in photovoltaic maintenance is still in its infancy, and is able to identify anomalies, but is not yet able to troubleshoot





to inspect large systems. The drones we have now allow us to view the images on several monitors in real time, with far better resolution and capability than we could have imagined back in 2016. A manual review of the images is required to identify anomalies, such as hot spots that can be caused by a burnout of the panel, which can lead to a fire. Through this evolving use of current technologies, we have been gathering data about photovoltaic

The use of AI is one of the most important technological advances in the industry of maintenance. It is now being used for predictive maintenance in many industries to help identify a parts malfunction prior to failure, and it has proven itself effective. The AI used

in photovoltaic maintenance is still in its infancy, and is able to identify anomalies, but is not yet able to troubleshoot. Manual review by a certified thermographer and PV expert is needed to refine the analysis to determine what the cause is for each of the anomalies. A close inspection is required to determine if there is an external cause or an internal problem.

I foresee that the integration of AI in the PV field is going to work with the inverters and optimizers, first to identify precursor problems on the units from previous data and then to dispatch a warning. This all works along with the monitoring set-ups in the photovoltaic systems and will give notice to the O&M company and the system owner to take precautionary action. We have been tracing items that may be precursors and seeing trends, and this information is what is used when they build AI to work on the maintenance side.

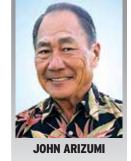
The use of AI in the maintenance section happening now in the photovoltaic industry is in its beginning stages. My company has spoken with some programmers on what we are identifying and passing back and forth information to help to make preventative maintenance even better and to help protect people's solar investments in more effective and efficient manners.

In the next five years, these AI programs will be an integral part of PV systems O&M. Given the recent advancements in drone technology and artificial intelligence, it is hard to imagine what the technologies may be in another 10 or 20 years. ❖

Fred Brooks started working in the photovoltaic industry in 2006 and started the first solar cleaning and maintenance company in Hawaii in 2009. For more information: 772-4705 or fred@pacificpanelcleaners.com.



It's Only Going to Get Smarter to Stay Comfortable



Advances in AI are making HVAC systems more efficient and economical



I (artificial intelligence) has been the focus of R&D departments in many industries and that's also long been the case for HVAC. From the most futuristic building in Shanghai to the landmark towers of downtown Honolulu to chic new eateries, intelligent sensing systems are already saving smart builder operators energy, which is money. It's a trend that's only going to keep getting better.

I can speak to what we see happening in our own company. The trends are so important that we even established a separate Carrier Hawaii Controls Division to capitalize on them several

Today, intelligent controls are an effective way for any manager overseeing a retrofit or new installation to greatly increase the efficiency of their climate control system. By using a shared proThe key for building managers will be to stay abreast of innovation and examine each carefully.

tocol or language, such as the widely accepted BACnet (Building Automation Control Network) standard, all the various sensors, processors and devices within your HVAC system can communicate with each other.

Occupancy, temperature and humidity levels, cooling needs and more can be continuously monitored and

adjusted in real time. That, of course, saves energy and, better yet, money. The BACnet control platform also interfaces with other protocols so your HVAC system is not locked into any one control system.

A few years ago, web-based interfaces such as Carrier's i-VU system came to the fore as a revolutionary means of further increasing the efficiency of these systems. These allow remote control of climate zones, set points and more, as well as graphical reporting and alarms if there are any problems. As AI advances, it is likely to be able to assume even more of this control for managers, at a higher level of efficiency. These intelligent systems can already automate processes such as generating highly accurate monthly individual tenant billing reports. They are likely to get even more powerful.

In fact, as far as the HVAC industry



is concerned, AI is already providing opportunities to improve maintenance, comfort and energy savings. For example, some AI-enabled systems use predictive modeling to foresee when a breakdown may occur, giving contractors time to fix the issue before it results in downtime.

Other systems use AI to monitor and analyze conditions inside a space, as well as outdoors, and constantly make adjustments to the environment based on the data being collected. This leads to not only more comfortable occupants, but lower energy bills for building owners.

Advances in AI are likely to lead to even more benefits for building managers. For example, using data analysis instead of lengthy trial and error to set operating parameters will save both man-hours and energy costs. Improved diagnostics based on a mass amount of shared data will reduce downtime,

speed repairs and potentially reduce costs for insuring against catastrophic equipment failures.

As the advances roll out, the key for building managers will be to stay abreast of innovation and examine each carefully. By gauging the capital investment against reduced energy, manpower, maintenance and lifecycle replacement costs, smart operators will be able to fully benefit from the advances AI is bringing to the industry. �

John Arizumi is the president of Carrier Hawaii, the largest air conditioning distributor in Hawaii with locations on three islands. Mr. Arizumi is a past president of the American Society of Heating, Refrigerating and Air Conditioning Engineers, Hawaii *Chapter. For more information:* 677-6339 or visit carrierhawaii.com.



Smart Faucets and Flush Valves that Communicate



Leak detection, shut-offs and metering are integrating to create valves that mitigate risk while sub-metering — great tools for AOAOs



t is an exciting time in technology when it comes to plumbing, hot water and appliances. IOT (Internet of Things) is finally making its way to our field. In the plumbing channel, we are seeing smart faucets and smart flush valves that can communicate usage, leaks and performance.

This means properties are able to react to problems quickly and efficiently.

We are also able to see tenant or visitor behaviors and can use the data to design more efficiently in the future.

Leak detection, shut-offs and metering are integrating to create valves that mitigate risk while sub-metering — great tools for AOAOs.

Hot water technology continues to improve dramatically, creating more efficient products that have higher performance and provide redundancy.

Some of the most exciting advancements are in appliances. Consumers have the ability to utilize smart technology that creates shopping lists, creates menu options through product identification, and cooking

systems that can turn the family line cook into a Michelin-star chef.

For me, the most exciting advancement in appliances is self-diagnostic capabilities. Very soon our appliances will call a service agent, tell them what's wrong and what parts are needed. This technology will mitigate liability and reduce the repair cycle to less than half. �

Timothy Yee is area manager for Ferguson: 832-3696 or ferguson.com.

where generative design is being shown to be useful in developing a structure where all the seats have the most ideal viewing angle. Similarly, parking lots can quickly be given a set of parameters such as stall dimensions, street locations and lot size. The computer can then generate several different designs with the maximum amount of parking stalls and efficient exit and entry points.

As the use of machine learning, AI and BIM become pervasive in the construction industry, excessively long waits for plan review by an overburdened permitting office may be a thing of the past. Simply upload your BIM model and the computer checks to see that all the design parameters have been satisfied and, if so, issues your permit. This scenario is similar to what we are now seeing with automated DMV kiosks in supermarkets.

Construction is considered by many to be "the last frontier" when it comes to leveraging technology to solve issues such as information delivery, labor and material shortages and safety. We should all be excited for the new technologies that the building industry is embracing. �

Raymond Michaels is president of Maui Plumbing Inc. For more information: mauiplumbinginc.com or (808) 344-0642

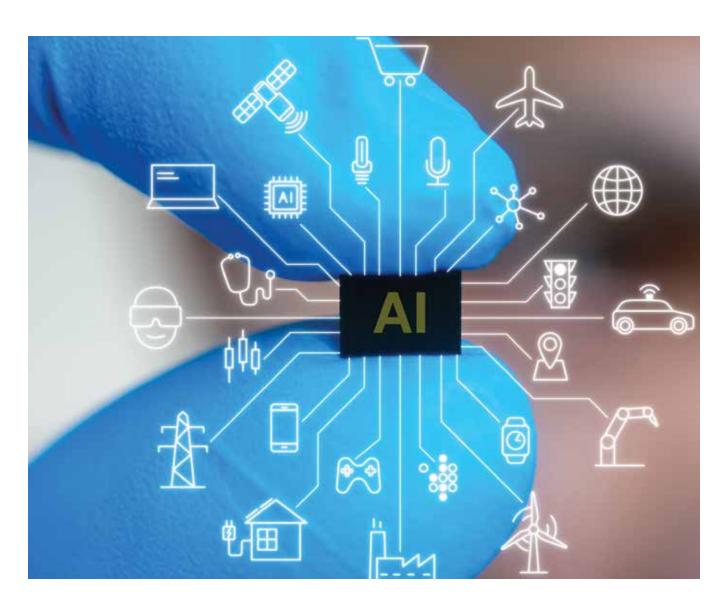




Al Will Upset Energy Industry— In a Good Way



Changes may be welcome for building owners



isruptive models over the past decade or so have flourished—Uber changed transportation, Netflix killed video stores, the contest between digital information and print is ongoing, and so much more. Artificial intelligence (AI) is set to disrupt even more industries, including the energy industry, but the changes may be welcome for building owners.

Although in its early stages of implementation, AI is poised to revolutionize the way we produce, transmit and consume energy. AI will increasingly automate operations over the

next several years in the solar and wind industries and boost efficiencies across the renewable energy sector.

Currently, building managers oversee their operations through hardware/software management systems that control the HVAC, pool pumps, temperature control and other common area elements, with individual tenants controlling energy usage within their leased space. In the future, AI will better enable building managers and owners to forecast demand for electricity usage.

Management already has the capability to track the energy

Technology makes it possible for a building to be automatically placed off-grid at times when a utility needs to reduce load to match generation.

produced from various resources, such as solar carports, rooftops and power storage systems. AI would manage all these elements without requiring human input.

The renewables industry is a data-rich environment. Solar generation systems have benefited from technologies that have been commercially developed and had sensor technology installed from the beginning. As a result, most of the advances supported by AI have been in resource forecasting, control and predictive maintenance.

This technology also makes it possible for a building to be automatically placed off-grid at times when a utility needs to reduce load to match generation. Sophisticated software systems, combined with onsite generation and/ or storage, allow the utility to cut the energy supply to certain sites. Commonly referred to as "grid services," this will be an important element in Hawaii's efforts to reach 100% renewable power.

Businesses can also benefit from AI advances which enable control of energy use in buildings, making the most of low-demand, cheaper periods of electricity supply. As a result, the use of AI enables the building manager to

have foresight over their energy profile.

With the installation of more sensors, the increase in easier-to-use machine learning tools, and the continuous expansion of data monitoring, processing and analytics capabilities, AI is poised to create new operating efficiencies and disruptive business models. �

Robert Johnston is president and CEO of Hawaii Pacific Solar. For more information: 808-661-1166 or info@ hawaiipacificsolar.com.

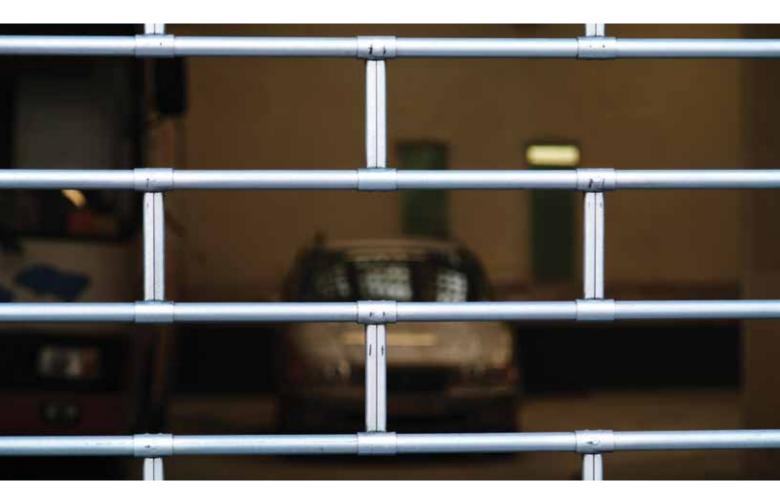




Advances in Parking Facility Doors, Gates



The newly introduced 'light curtain' for commercial doors replaces the old 'infra-red safety eyes'



n the immediate future, your rollup door or gate operator will be connected wirelessly with the manufacturer. When it needs service, it will ask for help and report what is broken. Security will be increased since an app on your phone will show you when the door was opened, who opened it and how long it stayed open.

New safety advances include continuous monitoring of the power flowing to the operator. When the operator senses a current surge due to obstructions or door failure, the operator will reverse and protect from further damage.

The newly introduced "light curtain" for commercial doors replaces the old "infra-red safety eyes" that were located six feet off of the floor with a continuous beam of protection from the floor to three or six inches up, depending on your specifications. This means your bumper won't stick out past the protection (as it could with the safety eyes), so your car is more fully protected.

At commercial sites, proximity readers now sense when a car with the transponder inside is approaching and can trigger the door to open automatically; yet... if a car is ever stolen that single unit can be easily removed from the programming.

Technology also allows for customization of your doors beyond all imagining 25 years ago. There are hundreds of designs and thousands of colors available. Whether you're building a custom home or need a special design to help your business stand out, today's technology allows almost unlimited choices. *

Peter Eldridge is the president of Raynor Hawaii Overhead Doors & Gates. For more information: 676-3667 or peter@ hawaiidoor.com.

Why AOAOs Must Budget for Higher Insurance Costs



In addition to more expensive premiums, some companies may not renew condo policies



any associations have heard of or are currently facing the effects of what we refer to as the "hardening insurance market." The lines of insurance that are most affected are your standard property coverages, such as fire, hurricane, flood, earthquake, and also include directors' and officers' liability and umbrella/excess liability.

What does this hardening insurance market mean for your association now, and going forward?

How can your association address the uncertainty?

And what does the "hardening insurance market" mean? A hardening insurance market can mean one or both of the following:

- 1) Insurance carriers are limiting the amount of insurance that they are willing to provide (the capacity) and changing underwriting guidelines on what they are willing to insure. They are asking more questions and are closely reviewing accounts. Some insurance carriers may not renew accounts that no longer fit in their appetite, or might lower their capacity and will not offer the same limits.
- 2) Insurance rates are starting to go up significantly. Insurance carriers want to be sure that they are collecting the appropriate premium for an association's exposures

and loss history. Some increases are the result of the increased cost of reinsurance. Reinsurance is a form of insurance purchased by insurance companies to limit the amount of loss they could potentially incur. If it is too large of a risk for an insurance carrier, they may not renew your account instead of increasing your rates.

How to address it?

While it is hard to say what to expect five, 10, 20 years down the road, one thing for certain is that associations need to be ready for any increases that may lie ahead. The best recommendation is to ensure that your association

Ditch the mindset that your insurance company will be renewing flat with no increases, or that your insurance pricing will go down anytime soon.

budgets for any unexpected changes and for any premium increases. Ditch the mindset that your insurance will be renewing flat with no increases, or that your insurance pricing will go down anytime soon. While it may occur, it is very unlikely, unless there are special circumstances for your property or association. Estimated increases depend on many factors, including but not limited to carrier capacity/ appetite, location, coverages, losses, and so on. While there is no one-size-fits-all, many associations are already starting to budget for overall premium increases from five to 15 percent in anticipation of the changing insurance marketplace.

Unfortunately, the future of insurance is unpredictable, as catastrophic losses could cause drastic effects on the insurance marketplace at any moment. One thing for sure is that associations should be prepared, as we expect premiums to continue to rise. �

Elaine Gascon is an account executive at Atlas Insurance Agency in the AOAO Specialty Unit, handling the insurance program for over 75 condominium associations. For more information: egascon@atlasinsurance.com.



The Hunt for Hybrids

One of the first to jump from hotel management to condos, Ray De Smet says the need for hospitality-trained managers will only grow

BY DON CHAPMAN

e's the product of two private schools, St. Joseph's in Waipahu and Damien Memorial, and earned his degree in communications from the University of Hawaii at Manoa, but Ray De Smet's says his real education came from "the University of Sheraton."

That's how he refers to his 26-year career in the hotel business. It ultimately led to him becoming an early pioneer in what he calls the "influx" of hotel people moving into condominium management.

So he was there in 2008 as the newly hired operations

director at Capitol Place when it opened downtown and the Kobayashi-MacNaughton groups introduced the term "residential specialist" at Capitol Place and Hokua to take the place of "security guard."

"It was based on the hybridizing of job descriptions, 51% security and 49% hospitality," says De Smet, general manager at Ae'o. "A lot of other buildings have adopted the term, but that's where it started. There's a difference in quality of service and number of services offered."

: Tell us about Ae'o, but first please tell us how to pronounce it.

It's like the "ae" in Waianae, or like Old McDonald, ee-ai-o.

As for the building, we opened Dec. 6, 2018, and I'd come on in July.

Our rooftop amenity deck is the 41st floor. We have 34 residential floors. plus parking and commercial space. There are 466 units, 100% sold, 85%-90% occupancy, 60% owner-occupied

We're affiliated with Hawaiiana Management, but the staff is all hired by the association.

Our commercial units are extremely popular—Whole Foods, Rinka's Japanese restaurant and Straub Urgent Care. Straub is a great amenity in itself, they've already assisted some of our residents. Two more commercial tenants are coming.

: You've become known for opening buildings. How many now?

Capitol Place, and then Pacifica, Symphony and Ae'o as general manager.

: What are the pros and cons of a new versus established building?

The con is there's a tremendous amount of work that has to happen with a new building, setting up everything from staffing, training, uniforms, software, computers, name tags, equipment, everything. And it all has to come together on time, so there's stress.

The pro is that you get to set yourself up operationally and you get to set the bar—it's a lot easier to set the bar and maintain it at a high level in the initial stages rather than trying to turn the Titanic around.

: Do you have a philosophy for opening a building?

The analogy I use is that the building is like a limousine and I'm the driver.

When the dealership turns the keys over to the new owner, I come with the car. And I need to have a driving style that is easy on the machinery and that doesn't make people in the backseat sick. The board is sitting closest to me in the back seat, and I look over my shoulder and say, "OK, boss, where do you want to go?" So I keep the car clean and gassed and well-maintained, and I take them in the direction they want to go. A lot of boards will sit back and say "just drive." Others are hanging over the seat, saying "are we there yet, turn here, use your blinker"—they really want to get involved in the driving process. Every limo is different, every driver is different, the people in the backseat are different. Sometimes they can become polarized, and some are saying turn right and others are saying turn left, so for the diver that makes it a bit of a challenge.

: What did your hotel experience involve?

Safety, security, loss-prevention, OSHA compliance—any way that the hotel could lose money is what we were involved in. You want to prevent it, mitigate it, record it. Hospitality management prepared me for when the condominium industry wanted to

become more resort-like—it looks like a resort, it acts like a resort, so there has been an influx from the hospitality side.

: What led to you changing career paths?

The hotel industry can be very demanding—so can condominiums but I'd been in hotels for 26 years and it was an opportunity to grow and change. I like to push myself. When the opportunity came to become operations manager, at the time I was president of my own condo board, so the transition wasn't that difficult. I sort of knew what I was walking into. It was a natural transition.

I always say I'll never open another building, but then a new opportunity arises and I can't say no.

: What do you enjoy about managing condos?

I enjoy helping people, both my team and our residents. And I like making order out of chaos. The only way you're going to succeed is to have a good team.

: In *BMH*'s cover story last month, new IREM president Kristi Hirota Schmidt

...continued on page 45



Time to Require **Certification of AOAO Board Members**

Funding is already available to conduct training and webinars



or years, certain members of the Hawaii Legislature have sought mandatory education and certification of condominium board members. This would require all condominium board members to participate in educational seminars as a condition of their serving on their respective condominium boards of directors. Last year a legislative committee found that the Condominium Education Fund 1, a special fund established over 25 years ago pursuant to former HRS 514A-131 (now HRS 514B-71), had collected too much money and declared a moratorium on the next installment.

Current technology allows various organizations including colleges to provide online education programs and webinars. Since the state has

determined that the Condominium Education Fund has too much money, the Department of Commerce and Consumer Affairs (DCCA) should consider using those excess funds to implement educational webinars and a certification program for condominium board members.

We are all aware that condominium board members are unpaid volunteers, who are elected by the owners in their respective associations. Many of us are also aware that in some instances it is very difficult to get owners to serve. So why would an owner volunteer for a position as board member if he or she had to take an educational seminar in order to serve?

The response is that condominium disputes have resulted in a large number of claims and expensive litigation, exposing board members to personal liability. Hawaii has the largest number of Directors and Officers (D&O) claims of any state in the U.S., and the amount of the claims are larger than those being made on the Mainland, according to Sue Savio, whose company provides insurance coverage for many condominium projects throughout Hawaii. As a result, there are fewer carriers willing to offer D&O liability coverage, and when they do, the premiums are higher than for states on the Mainland. Also, because all condominium projects are in the same risk pool, if there is a large insurance claim that a carrier has to pay in Hawaii, that cost is spread among all of the condominium projects in the Islands. This means that even if your condominium project did not make any claims against their D&O policy, the insurance premium can increase due to the conduct of other boards of directors, whose actions resulted in claims being paid by their insurer.

Board members, by the express language of their association governing documents (Declaration of Horizontal Property Regime or Declaration of Condominium Regime), are charged with the obligation to manage the operations of their condominium project.

All condominium associations in the state are assessed a per unit charge every other year and the funds are directed to be spent on education of board members and owners and to support dispute resolution. The fund is collected by the state of Hawaii and administered by the Real Estate Commission, which is part of the DCCA. The initial charge was \$1.25 per unit and currently the charge is approximately \$10 per unit.

This does not mean board members should "literally" be involved in the day-to-day operations of their

project, which is typically a multi-family residential building or buildings that are worth millions of dollars. The Declaration typically requires the board to hire a corporate property management company that will be in charge of the day-to-day operation of the project, including but not limited to the hiring of a resident manager or site manager who will supervise association maintenance/housekeeping/security employees or out-sourced staff engaged to do that work for the condominium project. The board makes the final decision with respect to the resident manager or site manager and whether to hire employees or to outsource the work, but the manager does the hiring of employees and selection of outsource vendors.

As part of their official duties, board members are required (i) to maintain common elements of the building and project by reviewing and approving repair, maintenance and replacement proposals; (ii) to establish and enforce rules and regulations for the use of common elements and common areas; (iii) to prepare budgets and reserves for deferred maintenance and to collect maintenance fees from the owners

The expectation is that if condominium board members were required to learn about their fiduciary duties to the association, the business judgment rule and conflicts of interest obligations that are imposed on them by HRS Chapter 514B, and that they could be held personally liable for breach of those statutory obligations, board members would act responsibly to avoid the conduct that has caused condominium owners and residents to complain to legislators year after year, resulting in requests (i) to impose term limits on board members; (ii) to establish an ombudsman in a state agency to resolve disputes between owners and their board, (iii) to require regulation of

Condominium disputes have resulted in a large number of claims and expensive litigation, exposing board members to personal liability.

property managers so that they would be liable to owners/residents for the "bad acts" of the boards they serve.

In a perfect world, the board of directors would comply with their fiduciary duty and act in the best interest of the association; be fair and transparent and not selectively enforce the rules and regulations; be diligent in ensuring that the proposals for work be done for the common areas of the project are appropriate, cost-effective and done by licensed professionals, with errors and omission coverage. Over the years, however, legislators have heard otherwise—that board members act in their own self-interest, accept the lowest bid—not necessarily the best propos-

al-for work to be done; hire friends and relatives who may not be qualified to do work for the project; hire unlicensed contractors; engage

in selective enforcement of rules and regulations; and ignore or stonewall residents' complaints regarding repair and maintenance issues.

Since we don't live in a perfect world, its time the DCCA used the money they have collected from associations throughout Hawaii to implement an educational and certification program to educate all board members to improve living conditions for their residents and reduce their insurance costs and exposure to claims. *

Jane Sugimura is a Honolulu attorney specializing in condo law. Reach her at ysugimura@paclawteam.com.



Who is Responsible for What in Your Condominium Community

Sorting out who is responsible for what in a condo association

y condo got flooded!" is often a panicked call made to the Hawaii Real Estate Branch by an owner, asking what they should do about water leaking into their unit. From the range of inquiries, it appears that owners oftentimes do not know who is responsible for what in their condo project.

A condo project can be a complex organization with various employees, vendors and agents who help manage and run the property.

Association Board of Directors

Owners elect a volunteer board to handle the business of the association and governance. The business of the board is to provide for the needs of the entire association and preserve, protect and enhance the community. Concerns regarding these areas should be addressed to the board, preferably in writing.

Condominium Managing Agent

Condominium managing agents (CMA) are third-party licensed real estate brokers or authorized trust corporations contracted by the association to perform certain tasks for the association. The management company takes directions from the board. These tasks range from simple accounting to complete management. Typical responsibilities include overseeing repairs and projects, finances and accounting, and insurance and registration renewals. Owners should check with their boards to see what services their association has contracted the CMA for and contact

the CMA regarding such services. Owners may request copies and examination of the contract pursuant to \$514B-154(b), HRS.

CMAs assign an employee to be the liaison between the management company and the board. This is generally the person who is present during and contractors who likewise take direction from the board.

Insurance Agent

Condominiums of certain sizes are generally required to have insurance. The board is also granted the power under chapter 514B, HRS, to buy home-

A condo project can be a complex organization with various employees, vendors and agents who help manage and run the property.

board and regular meetings. Common titles for this employee are "account executive," "management executive," "community manager" or "property manager."

There is no requirement that an association hire a third-party CMA. Many associations self-manage.

Resident/On-Site Manager

Resident or on-site managers can either be an employee of the association or CMA. Typically, they are on-site workers, physically maintaining common elements and conducting day-to-day non-board operations.

Attorney/Experts

Associations may retain an attorney for legal questions, concerns and litigation. The attorney works for the association, not for individual owners, and thus takes direction from the board. Associations also may retain other experts such as engineers, security specialists

owners' insurance and charge owners who neglect to purchase their own. A private insurance agent is the point of contact for the insurance contracts that cover the association, directors and officers, and any individual home insurance policy purchased on behalf of owners.

So what to do about the water leak?

Be proactive and call a plumber. Then contact the site manager, CMA liaison, if there is one, and the board. Then contact the insurance agents for the unit that is leaking, your unit and the association.

Who pays for what depends upon the governing documents, board policy (§515B-143(d), HRS), and insurance contracts. ❖

Carole R. Richelieu is the senior condo specialist in the state Department of Commerce and Consumer Affairs' real estate branch. Contact her office at 586-2644 or go to hawaii.gov/hirec.

mentioned that you're heading up an effort to offer condo managers hospitality training. Can you expand on that?

When I was younger, I wanted to be a teacher. If I can help somebody, I feel I should, and when a light goes on for them, I love that. At Sheraton, I was training employees—train the trainer, training managers on how to train their staffs. Now I'm teaching hospitality for the condo side. I have some things that have really worked for my teams over the years. When I was preparing to leave Symphony to come over here, it really hit me. They wanted my input in who to hire as my replacement, and I said a hybrid, somebody with hospitality, that's the way the building is set up. It's been a joy to bring the hospitality side into condos.

Anyway, when people with hospitality backgrounds were getting hired, the IREM board got feedback from our members, what is IREM doing to help us compete? I thought about it, and hotels hire for certain personalities, they're trained a certain way, so I wanted to take the same basic hospitality I was giving to my teams and then tweak it for our members. First, I have to see what the board says, use them as a sounding board, but hopefully we can roll it out for our members.

: What qualities make for a good condominium manager?

Striking a balance between your IQ and EQ—your intelligence quotient in terms of experience and actually managing the building, budgets and that sort of thing, and your emotional quotient, which means people, the hospitality side, being able to empathize with people. If you can bring both to the table, you have a really good chance of succeeding.

The EQ side also means communication. First you communicate for understanding, then for agreement.

I believe in ACTS: attitude, communication, teamwork and success. What you're really hired on is attitude.

Your job is trying to make everybody feel special, make your team feel special, make your residents feel special, whoever you're with. ❖



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Superblock Celebrates the Holidays

Members of the "Superblock" group of building managers gathered for a holiday luncheon at Assaggio Ala Moana on Dec. 4. The Superblock was founded a few years ago by Duane Komine of Hokua, bringing together managers from condominiums in the Kakaako-Kapiolani-Waikiki area. "We all used to compete with each other," says Duane (foreground). "Now we have colleagues and friends we can call if we have a question or an issue."



Condo Sales, Prices Are Mixed

Following an impressive month of October, November brought mixed results to condo sales throughout Hawaii.

On Maui, the median cost of a condominium dropped from \$528,650 in November 2018 to \$497,550 this year, a drop of 5.9%. Countering that, sales were up 16.7%, from 120 to 140. The Kaanapali area saw 26 sales for a median cost of \$11 million, compared to November 2018 when nine condos sold at a median cost of \$1.5 million.

On the Big Island, 53 condos sold in November, compared with 51 a year ago, 3.9%, while the median cost rose 14.2%, from \$324,000 to \$370,000.

On Kauai, sales were down 27%, from 37 to 27, with the median cost up 2.7%, from \$550,000 to \$565,000.

On Oahu, sales volume was up 1%, from to 429 to 434, while the median dropped 1%, from \$415,000 to \$420,000.

October had been a very good month

for condo sales across the state, based on sales figures from this year compared to October last year.

Kauai led the way, with condo sales up a solid 21.6%, from 37 to 45, with the median price also rising, from \$430,000 to \$556,000, a growth of 29.3%.

Oahu followed suit, with 472 units selling, up from 443 a year ago, a gain of 6.5%. Sale prices also rose to \$441,000 from \$339,000, a gain of 13.1%.

The Big Island was also up, with sales increasing from 69 to 75, 8.7%, with the median up 13.9%, from \$323,000 to \$368,000.

On Maui, condo sales dropped from 143 to 132, down 1.5%, while prices rose from \$500,000 to \$515,000, up 3.2%.

The median is the price point at which half of condos sold for more and half for less. Sources include the Honolulu Board of Realtors, Kauai Board of Realtors, Realtors Association of Maui and Hawaii Island Realtors.





Explaining BWS Rate Changes

Buildings with sprinkler systems or hydrants are paying more

As Oahu's municipal water provider, the Board of Water Supply (BWS), changed its rate structure effective on July 1, 2019. It was created to accomplish the following BWS objectives:

- · Increase investments in Oahu's water infrastructure.
- · Reduce main breaks.
- Encourage conservation.
- · Provide funding for disaster recovery.
- Ensure that everyone pays closer to their fair share of water service costs.

During the rate study that led to the current rate structure, BWS conducted a cost-of-service analysis to help make decisions on how to more fairly and equitably distribute costs among various customer groups. For customers with private fire protection systems, such as building fire sprinkler systems or on-site private fire hydrants, BWS was charging a one-time upfront cost for the meter and its installation, as well as only for water used for incidental fire protection purposes, such as testing the fire sprinkler system and for maintenance.

these meters annually to ensure that

Yet BWS incurs costs to service



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BOMA Installs New Officers

Members of the Building Owners and Managers Association's Hawaii chapter gathered Dec. 4 at Oahu Country Club for a holiday luncheon and the installation of new board members. Holly Morikami of Heide & Cook succeeds Erin Dayanan of Pacific Property Management as BOMA president.



BOMA's new board of directors: Steven Sullivan, Holly Morikami, Carlie Woodward-Dela Cruz, Erin Dayanan, Corinne Hiromoto, Kalani Maika, Sandra Bollozos-Fraticelli, Cecily Ching, Jeff Shinagawa, Bobbie Lau, Michelle Harris, and Ray Marquina



Aileen Jesus-Meyers, Blanche King and Nelson Koki, Otis Elevator; David Leandro, Pacific Rim Glass Tinting



Brenda Dunham, Kawika's Painting; Joe Barrios, Alakai Mechanical



Left to right: Wendell Elento, Island Signal & Sound; Anthony Levoy III, Peake & Levoy; Captain Anthony Poe and Captain Tammy Poe, Salvation Army Standing: Scott Paul and Shannon Higa, Kleenco



Holly Morikawa, Heide & Cooke; Melissa Pavlicek, **BOMA Hawaii**



Standing: Bernie Wonneberger, Wiss Janney Elstner Associates Inc; Mark Alexander Jr, Summer Kapana, Dana Akasaki-Kenney, Katrina Akau

Left to right: Richelle Thomason, Larry Young, Linda Ko, Roxane Uyehara, Commercial Roofing & Waterproofing Inc.



Molly Roberts, Collier International; Jeff Shinagawa, Michelle Harris, Kerstyn Randall, RMR Group

Get Cozy



"Get Cozy" was the theme of IREM's fist "Pajama Jam" Dec. 12 at Flour & Barley at the International Marketplace. Event sponsor was MD Restoration. Guests also contributed toys, sports equipment and gift cards as Christmas gifts for foster children through Family Programs Hawaii.

...continued from page 43

they are "ready to serve," and can provide the necessary flow of water needed for fire protection 24/7. Prior to July, fire meter maintenance costs were covered by all BWS customers, rather than by only those being served by those meters. The recently established monthly fire meter standby charge now recovers the cost of service from those customers who benefit from the service.

As you plan your budgets, building owners and managers, you may want to know what future water rates are over the next few years. Information about the current fiveyear rate schedule, including the monthly fire standby meter charge, is posted on the BWS's website at boardofwatersupply.com/waterrates. Please note that the schedule includes charges for water service only; sewer charges are the responsibility of the city's Department of Environmental Services. They can be reached at 768-3330 or envsewerinfo@honolulu.gov.

Making Communicating Easier

sk any building manager, and they'll likely say that communicating with residents and board members is a key part of their job.

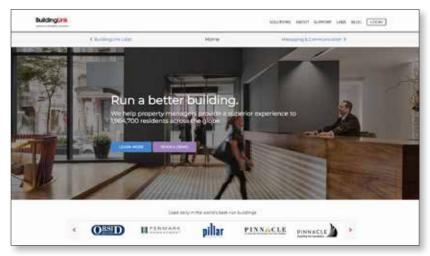
Here's a new product that helps make communicating easier.

"It almost makes our communication too easy," says Jose Domingo, general manager of Keauhou Place in Kakaako.

"With BuildingLink I can literally send every single unit information, text them or even call them. From my phone I could send an emergency warning. God forbid there's a tsunami warning, but I can get on my phone and send a warning to 1,200 people. You can also receive packages, do concierge stuff.

"This is a game changer as far as software is concerned—including incident report writing. You can also set it to just owners, just renters, just agents, or all, which I do because I like everyone to be informed. It's also a digital bulletin board, so you can post a unit for sale.

"It's cloud-based and tech support



He says Keauhou Place was just the fourth building in Hawaii to get the software.

"It's a New York-based thing and I'd been wanting it since I first heard about it. Anaha has it, Nauru has it, and Ae'o—I wish we were No. 3, I wanted at least a bronze.

"It almost sounds like I'm working for

them, but I'm not. I'm just so fascinated with what this site can offer. When I was back in New York, I met with their CEO, took a tour of a lifetime, four floors in the middle of Manhattan. No phones, no pictures. They're doing so much research to deal with so many items that are critical."

For more information: BuildingLink. com 💠



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